



MULTIMEDIA

UNIVERSITY®

STUDENT ID NO

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MULTIMEDIA UNIVERSITY

FINAL EXAMINATION

TRIMESTER 2, 2018/2019

MVR2053 – COLLABORATIVE VIRTUAL ENVIRONMENT

(All sections / Groups)

12 MARCH 2019
9.00 AM - 11.00 AM
(2 Hours)

INSTRUCTION TO THE STUDENT

1. This Question paper consists of 3 pages including cover page with 6 questions only.
2. Answer only 4 (FOUR) out of 6 questions. Total marks is 40 (FORTY) marks altogether. The distribution of the marks for each question is given accordingly at the end of each question.
3. Please write all your answers clearly in the Answer Booklet provided.

Question 1

- a. List down two main aspects that make CVE different with single user application in virtual environment. Provide example for each aspect. [6 marks]
- b. There are two contradictory constraints for the design of CVE which is human constraints and machine constraints. List down 2 potentially solution for this confliction constraints with an example of the situation. [4 marks]

Question 2

- a. What is the different between latency and bandwidth? Explain each element. [2 marks]
- b. Explain what are TCP and UDP and list down the advantage and disadvantage for both transport protocol. Which one is better for the game server? [8 marks]

Question 3

- a. Space structuring is one of the NCVE design challenges. What is the issue with the space structuring and how it can affect the NCVE design? [4 marks]
- b. There are few typical strategies to solve the space structuring problem. Based on your own understanding, explain how (1) separate server (2) uniform geometrical structure and (3) Free Geometrical works? [6 marks]

Question 4

- a. List down four solutions to improve user representation style for a better NCVE experience? [4 marks]
- b. For A 3D spatial interaction in NCVE, list down three navigation techniques that can be used for navigation design in NCVE [6 marks]

Continued...

Question 5

- a. Reciprocity of perspective is interaction between people and between people and their material environment. Suggest two solutions to improve the issue for reciprocity of perspective [4 marks]
- b. For the engagement of properties in NCVE, how capabilities of interaction devices can develop engagement for the platform. [6 marks]

Question 6

- a. From your experience playing any MMORPG, discuss about the factor that creates a sense of presence and reality. The discussion can be divided into three different components, which is from the sensory environment, individual precondition and also from a content characteristic. [10 marks]

End of Paper.